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Workshop Overview

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Workshop Overview

Abstract
The Air Force Materials Laboratory has been sponsoring a series of workshops for the last three years. The goals of these workshops are both general and specific, but what we are really trying to achieve here is to proceed with the job of translating, to find areas of research that can be moved, can be stimulated, can be brought to bear on specific problems. We are really out here looking for ideas. That's the name of the game in this business. Nondestructive evaluation is an unusual field in that there are almost no experts. There is no one group to which you can point and say, "This is where it is happening. These are the people who are moving the field."

Disciplines
Materials Science and Engineering | Structures and Materials

WORKSHOP OVERVIEW

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Nondestructive Evaluation is almost a virgin territory for research. Today, we have a lot of problems and not enough answers; in fact, NDE is almost looking for the impossible. It is almost unreasonable to hope that you can learn everything about a material without having to destroy it. That may seem ludicrous, but it is really our ultimate goal. No matter what you want or what you think you want today, somebody will require more information tomorrow.

In this workshop we are exploring some areas of NDE that are holding up advanced new technology, such as the inspection of composite and adhesively bonded structures. Both of these technologies offer great benefits for cost and weight savings, and the lack of good methods of inspection has probably held up their utilization more than anything else.

Back in Dayton, large sums of money are expended demonstrating advanced technology and, frankly, if nondestructive evaluation were as

advanced as the materials being utilized, these programs would move much faster. This impacts more than just the military. It impacts nuclear energy, the consumer market, et cetera. NDE underlies the entire field of materials.

NDE in all its many varied aspects is very big business in DOD, a conservative estimate being one billion dollars per year. The impact of advances in this field will clearly permit significant savings in tax dollars in both the acquisition and maintenance areas.

In this workshop what we desire is to have a free exchange between people with their different ideas, different viewpoints. I hope that people will feel free to ask pointed questions,ask the difficult ones, try to find out where we are. I hope that some people here say, "There is a problem that I think that I can impact"; or people with problems say, "There is something that is going on in the lab that might impact my problem."

We are trying to bridge the gap between the people with the problems and the people with the ideas. It is not easy. This has been tried many times and the success rate probably isn't too great, but in this workshop I believe we have the right people from both sides.

At this workshop, we hope to get people turned on. We need some creative approaches to some very difficult problems. We need and will support the excellent ideas that may significantly impact NDE.

There is one additional thing I would like to mention, and that is that we are looking to hire additional personnel at the Materials Laboratory. In addition to funding contractual research, we are expanding our in-house research program in acoustic nondestructive evaluation.

In conclusion, I hope we can get good conversations going. Since this is recorded, if you want to get in small groups and talk about things, please do. You can read about it later. Just really pitch in. Feel free and open to talk about things. A lot of interesting questions are being addressed here. Let's see what we can really do with it.